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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,210	12/09/2003	B. Thomas Barker	4002-	4618

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EXAMINER

SWIGER III, JAMES L

ART UNIT	PAPER NUMBER
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3733

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,210

Applicant(s)

BARKER ET AL.

Examiner

James L. Swiger

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show item 91, known as the gap, as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

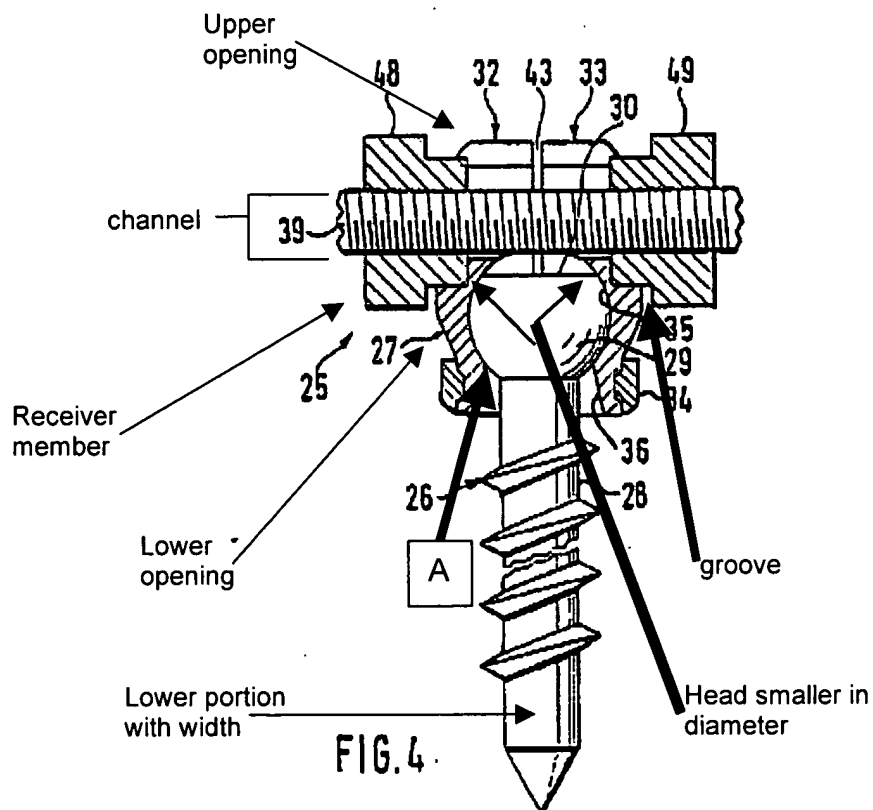
Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

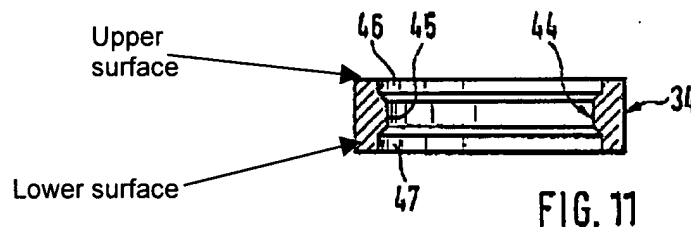
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

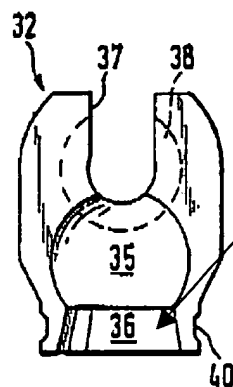
Claims 1, 2, 3, 20-23, 29-30, 36-38, 39-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Harms et al. (U.S. Patent 4,946,458). Harms et al. discloses a bone anchor assembly having a receiving member, having an upper opening, a lower opening, a channel configured to receive an elongated member, and a groove around the lower portion of the receiving member. See FIG. 4 below.



Harms et al. also discloses a crown member (34) that is movably disposed having an upper and lower surface (See FIG. 11).



Harms et al. also discloses a bone engaging anchor (e.g. a bone screw) that has a lower portion having a width (see Fig. 4), a head (29) that has a width smaller than the lower opening portion (see Fig. 4), a retaining member with a diameter smaller than the head and positioned below the head (see item A, in Fig. 4 above) and that is partially housed in the groove of the receiver member (see item labeled "groove" above). Harms et al. further shows a compression member with two branches (items 48 and 49 above) capable of securing an elongated member (e.g. a rod--39), and a crown member that can be considered beveled and concave that defines a hole through the apparatus. (See. Fig. 9). Being beveled and concave implies that a hole is present to acquire that shape.



Item 36 is beneath crown member 34. This figure shows the rounded, beveled shape that creates a hole. Since the crown surrounds item 36, it must have the same shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harms et al. '458 in view of Haider (U.S. Patent No. 6,565,567). Harms et al. discloses the above invention except for internal threads and a compression member to interact with them, a chamber in proximity to the crown member, ridges, and a roughened lower surface of the crown. Haider discloses internal threads (32) and a compression member (60) which work together in harmony to firmly secure the elongated member in place (Col. 5, lines 33-45). Haider also discloses a chamber (22) that allows access via a tool to the bone screw, and ridges (19b) that are complimented by a roughened lower surface of a crown (38b and 38c), to better secure the screw when it is being locked into place after implantation (Col. 5, lines 45-55). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Harms et al. with internal threads, a compression member, an open chamber and ridges in view of Haider to better facilitate the installation of the bone anchor assembly and the fixation of the components.

Claims 13-14, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harms et al. '458 in view of Haider '567 as applied to claim 12 above, and further in view of Nichols (U.S. Patent. 6,090,111). Harms et al. v. Haider disclose

Art Unit: 3733

the above invention except for a C-shaped member with an unloaded outer diameter and a groove diameter and a groove depth, and a tool print. Nichols discloses a C-shaped ring (42) whose purpose is to better maintain the position of the fastener within the body of the device (Col. 4, lines 5-15) and a tool print (122e). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Harms et al. in view of Haider with a C-shaped ring member and a tool print further in view of Nichols in order to better secure the bone anchor within the bone anchor assembly and a tool print to have a better grip with the head while using a tool.

Claims 24-28 and 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harms et al '458 in view of Nichols '111. Harms et al. discloses the above invention except for a C-shaped member with an unloaded outer diameter and a groove diameter and a groove depth. Nichols discloses a C-shaped ring (42) whose purpose is to better maintain the position of the fastener within the body of the device (Col. 4, lines 5-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Harms et al. with a C-shaped ring member in view of Nichols in order to better secure the bone anchor within the bone anchor assembly.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-896.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L. Swiger whose telephone number is 571-272-5557. The examiner can normally be reached on Monday through Friday, 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLS



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